

## Historical Floods: Swatara Creek at Harper Tavern, Pennsylvania

Latitude: 40.403

Flood Stage: 9 ft

Period of Record: 1877-Present

Last Flood: 2/25/2016

Longitude: -76.578

Number of Floods: 155

Date of Flood	Crest (ft)	Streamflow (cfs)	Category	Code					
6/1/1889	25.60	88,000	Major	C1 F1	10/3/1929	11.20	9,800	Minor	none
7/21/1919	9.40	6,750	Minor	none	4/7/1930	9.30	6,620	Minor	none
3/8/1920	9.60	7,030	Minor	none	3/28/1932	9.50	7,020	Minor	none
3/13/1920	11.32	10,000	Minor	none	11/1/1932	9.36	6,650	Minor	none
5/5/1921	10.16	7,640	Minor	none	4/17/1933	10.42	8,260	Minor	none
3/8/1922	10.40	7,880	Minor	none	8/24/1933	17.53	25,300	Major	none
1/17/1924	12.00	11,400	Moderate	none	12/2/1934	11.54	10,400	Minor	none
10/1/1924	13.20	14,200	Moderate	none	3/12/1936	13.75	15,800	Moderate	none
2/12/1925	14.40	17,200	Moderate	none	3/18/1936	9.92	7,710	Minor	none
11/13/1925	9.40	6,750	Minor	none	4/6/1936	10.47	8,620	Minor	none
1/19/1926	9.40	6,750	Minor	none	10/23/1937	11.80	11,000	Minor	none
2/26/1926	11.10	9,600	Minor	none	12/6/1938	10.30	8,350	Minor	none
7/30/1926	12.40	12,500	Moderate	none	3/15/1940	10.42	9,660	Minor	none
11/16/1926	14.60	17,800	Moderate	none	3/31/1940	10.35	9,660	Minor	none
11/19/1926	10.20	7,960	Minor	none	4/9/1940	9.59	8,440	Minor	none
10/13/1927	9.10	6,370	Minor	none	4/20/1940	9.22	7,860	Minor	none
10/19/1927	9.20	6,490	Minor	none	9/1/1940	11.51	11,500	Minor	none
2/15/1928	10.60	8,650	Minor	none	5/23/1942	12.88	14,000	Moderate	none
6/30/1928	11.00	9,400	Minor	none	8/17/1942	11.04	10,300	Minor	none
2/27/1929	10.40	7,880	Minor	none	9/28/1942	9.91	8,440	Minor	none
3/6/1929	10.50	8,000	Minor	none	12/30/1942	11.07	10,300	Minor	none

Drainage Area: 337 sq mi

Gage Datum: 356.68 ft MSL

Lower Main Stem Susquehanna Basin

County of Gage: Lebanon

County of Forecast Point: Lebanon

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11/9/1943	13.25	14,600	Moderate	none
7/19/1945	11.35	10,400	Minor	none
5/28/1946	9.47	7,620	Minor	none
5/22/1947	11.72	11,000	Minor	none
5/26/1947	9.98	8,310	Minor	none
7/8/1947	10.57	9,190	Minor	none
12/31/1948	11.21	10,400	Minor	none
1/6/1949	10.13	8,810	Minor	none
11/26/1950	13.09	14,000	Moderate	none
12/5/1950	13.34	14,400	Moderate	none
2/7/1951	11.16	10,500	Minor	none
12/5/1951	9.16	7,590	Minor	none
3/12/1952	11.72	11,500	Minor	none
4/29/1952	9.44	8,150	Minor	none
5/12/1952	10.78	10,100	Minor	none
9/1/1952	11.39	11,000	Minor	none
11/22/1952	11.79	11,700	Minor	none
1/24/1953	9.76	8,690	Minor	none
8/19/1955	12.35	12,700	Moderate	none
4/6/1957	10.30	9,390	Minor	none
12/21/1957	10.47	9,680	Minor	none

2/28/1958	9.40	8,150	Minor	none
1/22/1959	9.67	8,550	Minor	none
9/3/1959	9.47	8,280	Minor	none
9/20/1960	10.71	9,980	Minor	none
2/26/1961	11.10	10,600	Minor	none
1/26/1964	10.27	9,350	Minor	none
2/8/1965	11.56	11,300	Minor	none
2/14/1966	10.06	8,140	Minor	C7
5/31/1968	9.08	7,540	Minor	none
4/3/1970	11.97	11,600	Minor	none
2/14/1971	12.76	13,100	Moderate	none
6/23/1972	23.72	66,700	Major	none
9/15/1973	9.85	8,360	Minor	none
12/21/1973	10.98	10,000	Minor	none
3/20/1975	9.74	8,210	Minor	none
9/27/1975	17.24	24,700	Major	none
1/27/1976	12.57	12,800	Moderate	none
10/10/1976	12.89	13,400	Moderate	none
3/5/1977	10.85	9,820	Minor	none
3/23/1977	9.16	7,420	Minor	none
1/9/1978	9.90	8,430	Minor	none

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1/26/1978	12.47	12,600	Moderate	none
3/27/1978	11.38	10,600	Minor	none
1/21/1979	10.15	8,780	Minor	none
1/25/1979	15.77	20,500	Major	none
2/24/1979	10.53	9,340	Minor	none
2/26/1979	11.42	10,700	Minor	none
3/6/1979	9.36	7,680	Minor	none
9/6/1979	10.18	8,820	Minor	none
3/22/1980	9.55	7,550	Minor	none
2/11/1981	12.60	11,000	Moderate	none
2/24/1981	9.80	6,440	Minor	none
2/4/1982	9.28	-9,999	Minor	none
4/16/1983	12.82	13,000	Moderate	none
12/14/1983	11.19	9,940	Minor	none
2/15/1984	9.20	7,160	Minor	none
5/30/1984	10.66	9,160	Minor	none
2/3/1985	11.12	9,840	Minor	none
3/15/1986	10.75	9,390	Minor	none
9/14/1987	12.03	11,600	Moderate	none
5/20/1988	11.93	11,400	Minor	none
5/6/1989	9.79	7,790	Minor	none

5/17/1989	11.68	10,800	Minor	none
1/30/1990	9.51	7,420	Minor	none
12/4/1990	9.31	7,160	Minor	none
3/27/1992	10.18	6,850	Minor	none
4/2/1993	9.36	7,230	Minor	none
4/11/1993	9.58	7,510	Minor	none
11/29/1993	15.09	15,800	Major	none
12/5/1993	12.11	10,200	Moderate	none
3/27/1994	10.81	8,280	Minor	none
6/7/1994	9.61	6,690	Minor	none
1/21/1995	10.17	8,800	Minor	none
1/20/1996	15.67	19,800	Major	none
1/28/1996	12.49	12,600	Moderate	none
10/20/1996	11.83	11,400	Minor	none
11/9/1996	10.12	8,730	Minor	none
12/2/1996	9.76	8,210	Minor	none
12/14/1996	10.18	8,820	Minor	none
1/24/1999	9.34	7,630	Minor	none
3/22/2000	11.23	10,400	Minor	none
12/17/2000	10.94	9,950	Minor	none
3/21/2003	10.39	9,120	Minor	none

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6/3/2003	10.28	9,000	Minor	none
8/11/2003	9.40	7,700	Minor	none
12/12/2003	10.82	9,800	Minor	none
9/19/2004	17.36	25,000	Major	none
9/29/2004	10.09	8,690	Minor	none
1/14/2005	10.29	8,980	Minor	none
3/29/2005	11.02	10,100	Minor	none
4/3/2005	11.58	11,000	Minor	none
6/28/2006	18.28	28,300	Major	none
10/29/2006	10.58	9,410	Minor	none
11/17/2006	10.55	9,360	Minor	none
3/2/2007	11.67	11,200	Minor	none
2/2/2008	9.32	7,600	Minor	none
3/6/2008	13.88	15,300	Moderate	none
12/12/2008	10.26	8,930	Minor	none
10/1/2010	11.75	11,300	Minor	none
3/7/2011	10.66	9,530	Minor	none
3/11/2011	14.32	16,300	Moderate	none
4/17/2011	11.78	11,300	Minor	none
4/28/2011	9.26	7,520	Minor	none
6/12/2011	10.13	8,740	Minor	none

9/8/2011	24.46	74,800	Major	none
9/28/2011	11.11	10,200	Minor	none
11/23/2011	10.22	8,660	Minor	none
5/16/2012	9.13	7,340	Minor	none
10/30/2012	9.28	7,510	Minor	none
1/31/2013	9.01	7,190	Minor	none
10/29/2015	9.14	7,350	Minor	none
2/25/2016	10.85	9,440	Minor	none

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Crest (ft)

Streamflow (cfs)

Category

Code

-9999 signifies missing data

### MARFC Codes

Code Description

- C1 Crest information looks unreliable and incomplete and not used in frequency calculations. Some of the floods are based on current flood stage and nearby gage information.
- C2 Crest information looks reliable despite potential problems. This data was used in frequency calculations.
- C3 Crest height estimated by the USGS.
- C4 Crest height is from the National Weather Service.
- C5 Crest height affected by backwater.
- C6 Crest occurred at a previous flood stage that is lower than the current flood stage. The crests below the new flood stage are not used in flood frequency calculations.
- C7 Crest from USGS yearly peak and/or date is different than the crest we provide. In many cases MARFC uses crest based on backwater or ice effects. Crest month or day of occurrence has been estimated by The Middle Atlantic River Forecast Center usually based on nearby gage information.
- C8 Crest date (day) in the month is unknown.
- C9 Flow is an estimate.
- F1 Flow affected by regulation or diversion and in some cases to an unknown degree.
- F2 Flow effected by snow-melt, ice jam or debris jam break up.
- F3 Flow affected by dam failure.
- F4 Flow - All or part of the record affected by urbanization, mining, agricultural changes, channelization or other factors.
- F5 Gage height at a different site and/or datum.
- G1 Gage is not an official USGS gage with crests provided by the NWS. Crest information looks unreliable and incomplete and not used in flood frequency calculations.
- G2 Gage datum changed during this year.

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